



Stella Bedggood Memorial Lecture

Effects of Urbanisation on the

Tawny Frogmouth (*Podargus strigoides*)

presented by Dr. Marian Weaving

Urban Ecologist and Teaching Associate at Monash University.

One of the inevitable consequences of a growing human population is changes to the natural landscape. The loss of a large tree in a back-yard or parkland and clearing of small pockets of native remnant vegetation can have flow on effects to our native wildlife.

In the field of urban ecology, research shows that wildlife species respond to urbanisation in a range of ways, but can be classified by their responses into three broad categories.

‘Urban adaptors’ are those animals that learn to adapt to changes associated with human occupation.

‘Urban avoiders’ are species that disappear entirely because some specific habitat requirement is no longer available in the landscape and ‘Urban exploiters’ are species that have learnt to exploit the changes brought about by urbanisation to their advantage growing so numerous as to be almost considered a pest species.

Recent investigations of one of Australia’s unique nocturnal birds, the Tawny Frogmouth, suggests that the species is well equipped to be classified as an ‘urban-adapted’ species. There are several reasons why they have achieved this status, and why they occupy suburbs and city environments in high numbers compared to more forested environments.



A major factor is their lack of reliance on tree hollows and cavities for breeding and daytime roosting. Large hollow-bearing trees have become very scarce in urban areas due to perceived risks to people and clearing for housing development. Frogmouths are not reliant on specialist prey and will consume many types of invertebrates as well as frogs and mice. Gardens, parklands and bushland remnants provide a year-round food supply. While Tawny Frogmouths show considerable flexibility in their use of the urban landscape, studies highlight a reliance on areas containing trees (particularly eucalyptus species) used for roosting and breeding.

They reproduce successfully and will sometimes double-brood if the first attempt fails. Breeding season is from July to January; high fledging and low failure rates contribute to their successful occupation of the urban environment. While currently it appears to be relatively good news for the Tawny Frogmouth, urbanisation is having detrimental effects on many other native wildlife species. Even for such urban-adapted species there is a tipping point where urbanisation becomes so intensive that many other species become locally extinct.

The benefits derived from living in ‘green suburbs’ and having regular contact with nature is undisputed by scientific evidence worldwide. Making our suburbs wildlife friendly is possible. It does however require the commitment, imagination and willingness of municipal planners, developers, community groups and residents working together to make it happen. I prefer to be optimistic and believe that the Tawny Frogmouth and other equally wonderful Australian species will be occupying our suburbs and surrounds in greater numbers in the coming decades. (Angair factsheet Number 11, Nov-Dec 2017/18)



Australian Naturalists Network Get-together

29-9-18 to 8-10-18

The tenth ANN biennial Get-together was a successful and enjoyable opportunity for about 80 field naturalists from all Australian states and territories to meet. It was planned and hosted by members of SEANA – South East Australian Naturalists Association. Most of this planning was undertaken by John and Elaine Gregurke, Geraldine and Geoff Harris (Castlemaine) and Joan and Nick Pitaro (Hamilton), with John assuming the leadership role very capably and reliably. A comprehensive program and information book, appropriate leaflets and maps and identification booklets were supplied to each person to enrich their Victorian experience.

The format gave interstate visitors a varied natural history opportunity. Our time began in Halls Gap in the Grampians for four nights with most visitors accommodated at Norval. Everybody gathered there for all meals (packed lunches), social exchange and evening speakers.

Two buses, with leaders, transported participants to an interesting range of walks with varied vegetation, scenery, geology, birds, some animals,



the Halls Gap native plant show, historic sites and picnic lunches. Naturalists went on all excursions as the buses alternated routes. Evening speakers covered a varied range of appropriate topics. One enjoyable evening was musical to break the formality but it was still very appropriate with conservation messages.

The next stage was through the Victorian volcanic plains via Mt Eccles National Park and Tower Hill National Park. Volcanic features along the way were explained. The night was spent at Deakin University in Warrnambool.

The next day followed the coast along the Great Ocean Road stopping at notable features enroute to Anglesea where accommodation was at the YMCA for most participants. This was the only day with some weather challenge.

The first full day based in Anglesea allowed morning free time, lunch, then a trip to Serendip at Lara, the You Yangs and Mt Rothwell Conservation and Research Centre for dinner, a talk then nocturnal animal walks, to spotlight some of the animals spoken about, some of which are in great need of their secure environment and continued research.



The final two days were led by ANGAIR members to local coastal, heathland and forest sites around Anglesea and Aireys Inlet. ANGAIR members evening talks gave us the benefit of their knowledge of their district.

Heart-lip Spider-orchid *Caladenia cardiochila*, Anglesea Heathland

The last night was spent enjoying images taken by participants during our get-together and completed with a meeting. The meeting elected Geoff Lay to lead the group and an invitation from Jeff Campbell to attend Stanthorpe in Queensland in 2020. This was greeted with enthusiasm and many left with “See you in Queensland” farewells.



Orchid photography

If you have not enjoyed an ANN get-together, consider a Spring 2020 trip. Ballarat is always well represented with our members taking advantage of chances to share, learn, experience and enjoy with this unique group.

My personal thanks to all organisers, particularly John for facilitating a most rewarding Victorian Spring 2018 ANN gathering.
Claire Dalman

December excursion and end of year social event

The final excursion for 2018 is to be to Gong Gong Reservoir. Meet at 1.30 pm in the Fed Unicar park, Gillies Street as usual to car pool or meet at “the Gong” at 1.45 pm.

From 4.30 pm members can gather at Kirk’s Reservoir Park (opposite Gong Gong) where we can settle down for a picnic tea—BYO. There are toilets and electric BBQ facilities at Kirk’s and family members are very welcome to attend. See you there!

Club Camp 2019 plans are well developed. Dates are Monday 25th to Wednesday 27th of March. (Note: this is immediately after the SEANA Camp at Port Fairy, so there’s plenty of scope for an extended stay along the Great Ocean Road.)

We will be exploring Apollo Bay—coast, rivers, forests and mountains.

Accommodation is at the Star of the Sea Guest House with maximum of 21 people in 12 rooms, so you need to get in quick. The house has self-catering, shared bathrooms, meeting and games rooms and laundry facilities.

Prices are:

Adults	\$47.50 per night per person
Secondary students	\$22.00 per night per person
Primary students and younger	no charge

If you plan to go, you must pay 50% of accommodation charge as a deposit by January 11th, 2019 either to treasurer, Les Hanrahan or by direct deposit to FNCB’s bank account 633000 119112290 (include your name and note “Club Camp”).



Excerpts of Club Meeting Minutes — Nov. 2, 2018

Opening and Apologies

Attendance: President John Gregurke welcomed 29 members and 29 visitors, including five members of Stella's family and Geoff Howard MLC.

Apologies: John Petheram, Sharon Knight MP, Jaala Pulford MLC, Joshua Morris MP, Mayor Samantha McIntosh, Andrew Grant, Cr Belinda Coates, Craig Morley, Linda Zibell, Susan Kruss, David Cook, Kathy Elder, Mark Moravec, Ken Hammond, Denis and Elizabeth Thurgood and Donna Malberg.

Stella Bedggood Memorial Lecture

John Gregurke told those gathered about Stella Bedggood's contribution to our Club and natural history in general before introducing Dr Marian Weaving, Teaching Associate at Monash University and Urban Ecologist to present the 40th Stella Bedggood Memorial Lecture.

Marian presented a wonderful, very illuminating talk titled "Effects of Urbanisation on the Tawny Frogmouth." We learnt, amongst other things, that Tawny Frogmouths are well-adapted to (and exploit) urban environments, as long as there are enough trees to perch and roost on. (see pages 1 and 2 for more of Marian's presentation)

General Business

We welcomed two new members to the Club this month: Cam & Rebecca Coventry.



The editors and FNCB Committee wish all members a happy and safe Christmas and a great New Year for 2019. Be careful on the roads, enjoy the company of friends and family and take care of yourself outside whatever you're doing.

If you're going away at all, come back home refreshed and enthusiastic about field naturalist activities for the next twelve months. We look forward to seeing you at all our meetings and outings.

Enfield State Park Excursion Sunday 4 November 2018

Over 30 people gathered at Little Hard Hills Hotel, Enfield. Our numbers were swelled by members of the Geelong Field Naturalists Club and visitors who had attended the Stella Bedggood Memorial Lecture on Friday night.

We entered Enfield State Park at Misery Creek Road and travelled to Surface Point picnic area. The walking track passed through an area where the topsoil had been removed during the gold mining period leaving the clay subsoil. Broad-leaved Peppermint, Brown Stringybark and Candlebark provided the overstorey. Small plants growing here included Slender Speedwell, Trailing Goodenia, St John's Wort, Common Rice-flower, Grey Parrot-pea and Small Rustyhood. Three short, thick stems of a Hyacinth Orchid had forced their way through the hard soil making an early start to their summer growing period. Wattles in the area were Snake Wattle with developing seed pods, Prickly Moses, Hedge Wattle and Blackwood.



Beside the dry creek, taller trees of Manna Gum, Messmate and Scentbark grew, many with hollows. A pair of Striated Pardalotes was observed flying in and out of one small hollow in a Manna Gum. Interesting plants in flower were Yam Daisy, Rough Bedstraw, Common Bird-orchid and Austral Indigo. A new species for the already extensive plant list for Enfield State Park was found budding along the track north of the creek: Austral Bugle.

By lunch-time, the cloud cover had broken up and we sought shade to enjoy our lunch in the Surface Point Picnic Area busy with campers for the long weekend. Blue Bottle-daisy was flowering amongst the grass.

After lunch we travelled up Misery Creek Road to Mt Misery Garden.

This was declared a flora and fauna reserve area in 1964 in the then state forest following FNCB lobbying led by Stella

Bedggood. It was upgraded to the higher reserve protection category of

State Park when the Enfield State Park was declared in 1994. Many different species were growing along the ridge, including Stella's namesake, the flowering Enfield Grevillea *G. bedggoodiana*. Also flowering were Twining Fringe-lily, Ivy-leaf Violet, Wattle Mat-

rush, Common Trigger-plant, Button Everlasting, Common Apple-berry, Purple Beard-orchid and Musky Caladenia flowering close to the road. Sully's keen eyes picked-out Tiger Orchids amongst the peas and *Poa* tussocks.

Two species of Leek Orchid were found but identifying the genus was difficult. Both seem likely to be part of the *Prasophyllum odoratum* complex given their strong scents. Colourful patches of yellow and orange/red-flowered Matted Bush-pea spread in clumps.



The final stop for the day was at Beacon (Bald) Hill. We drove to the top of the hill, accessible since the navigation beacon was removed. The area is still slashed regularly, maintaining the hill as an open patch suitable for many small species. Many species of lily, pea, heath, orchid and daisy colourfully covered the hillsides and 100's of iridescent copper-coloured, blue or green beetles covered the Eucalypt saplings. Field nat's were quickly spread down the slope and were soon on hands and knees examining the finer details of flowers.



Species drawing the most attention were the prolific sun-orchids and beard orchids. Rush-leaf Sun-orchid and Great Sun-orchid were readily identified but others were more difficult and suspected to be hybrids. The most striking one was a crimson-pink, spotted sun-orchid with thick yellow column tufts spotted by Claire. The same sharp pair of eyes spotted Pale Grass-lily. A low-growing plant that was spread across the site was Dwarf Boronia *Boronia nana* var. *nana* with compound leaves of three to five leaflets. Earlier in the day *Boronia nana* var. *hyssopifolia* with simple narrow leaves had been seen. Quite a few purple-flowered Heath Milkworts were found, and growing amongst them was the rare find (for Enfield State Park) of a Red Beard-orchid, a first for many of the field-trippers.



Slender Rice-flower
Pimelea linifolia

The last treat was the discovery of a bright pink Tiny Fingers orchid, growing amidst a Common Raspwort as we walked back to the top of the hill.

At the end of the excursion Rod Lowther, Geelong FNC president thanked Emily for leading an interesting excursion and showing the group a diverse range of spring flowering plants. This was the third inter-club visit between Geelong and Ballarat, with the Geelong club already considering options for one next year, a great initiative that increases the range of habitats we can visit and provides the added benefit of local knowledge.

By John Gregurke & Emily Noble

A complete list of the plant species noted during this excursion is published on the FNCB website for the information of interested readers. The list includes common and botanical names and the location of each.



Heath Milkwort
Comesperma ericinum

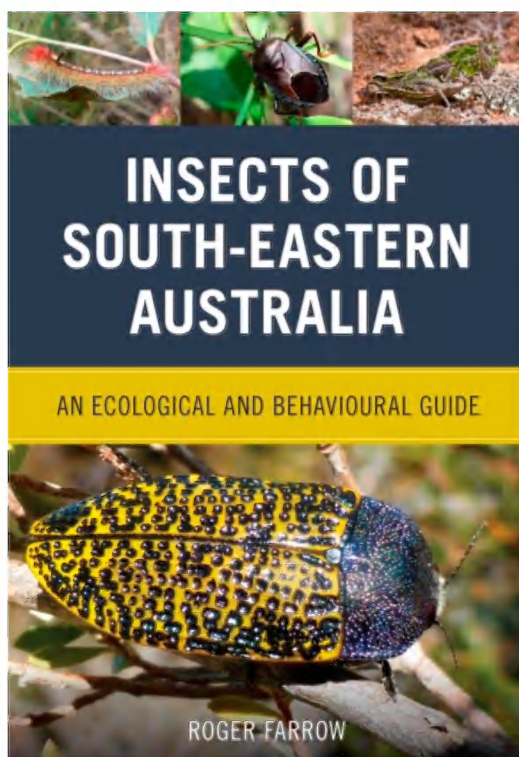
BOOK REVIEW:

Insects of South-eastern Australia: An ecological and behavioural guide by Roger Farrow (2016), CSIRO Publishing, Canberra.

Roger Farrow has taken a different approach to insect identification to the majority of similar tomes. He has avoided the more systematic method of presenting insects in orders and families and then illustrating representative species, usually the more commonly encountered ones. Instead, the author has taken an ecological and behavioural approach, presenting a wide variety of insects based on where they might be found in nature and what they might be doing when found. The book is split into two sections, the first introduces the insects and explains how the rest of the book is organised and why. It explains what an insect is and how it is classified. This section also describes the life cycle and the feeding strategies which explain where insects will be encountered. Part two comprehensively describes each group – plant feeders, predators, blood feeders, parasitoids, decomposers and finally, non-feeding and perching insects. This book is amply illustrated with brilliant colour photographs, mostly of insects in the environment. It also has a useful index of names – common and scientific as well as a list of food plants. There is a glossary and a further reading section.

As a complimentary volume to the conventional insect identification guides, this book certainly helps to make more sense of the insect world. It is a welcome addition to any field naturalist's library, but particularly for those interested in the study of insects.

By Bill Elder



CALENDAR 2018—2019

December 2018

Fri 7 *Field Nat's highlights of 2018* - FNCB Members

Sun 9 Excursion to *Yarrowee River and Gong Gong Reservoir*
led by Fran Hanrahan, FNCB

February 2019

Fri 1 *Trials on the Grampians Peaks Trail*
John Petheram, FNCB

Sun 3 *Wetlands and waterfalls of Hepburn Shire*
excursion led by John Gregurke, FNCB

March 2019

Fri 1 AGM followed by *Members' Images - Trees*

Sun 3 Excursion to *Bellarine Peninsula*
led by John Gregurke, FNCB

Committee

President	John Gregurke
Vice Pres	Fran Hanrahan
Secretary	Emily Noble
Treasurer	Les Hanrahan
	Andy Arnold
	Bill Elder
	Val Hocking
	John Petheram
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Meetings are held at Federation University Gillies St Campus on the first Friday of the month at 7.30pm.

Excursions: Leave from the carpark of Federation University Gillies St Campus at 9.30 am, unless otherwise advised.

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